

**CURRICULUM VITAE**

**Name** David Daiho Yuh, MD FACS FACC

**Personal Data**

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**Education** B.S. Stanford University (Honors and Distinction) Conferred 1986  
M.D. Stanford University (Honors) Conferred 1991

**Training**

1991-92 Intern, Department of Surgery, University of Minnesota Hospital and Clinics, Minneapolis, MN  
1992-94 Resident, Department of Surgery, University of Minnesota Hospital and Clinics, Minneapolis, MN  
1994-96 Postdoctoral Fellow, Department of Cardiothoracic Surgery, Stanford University Medical Center, Stanford, CA  
1996-98 Resident (PGY IV & V), Department of Surgery, Stanford University Medical Center, Stanford, CA  
1998-2000 Resident, Department of Cardiothoracic Surgery, Stanford University Medical Center, Stanford, CA  
2000-2001 Chief Resident, Department of Cardiothoracic Surgery, Stanford University Medical Center, Stanford, CA

**Career/Academic Appointments**

2001-2005 Assistant Professor of Surgery, Division of Cardiac Surgery, Johns Hopkins University, Baltimore, MD  
2005-2011 Associate Professor of Surgery, Division of Cardiac Surgery, Johns Hopkins

University, Baltimore, MD

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|--------------|--|
| 2005-2011    | Associate Professor (Joint Appointment), Center for Computer-Integrated Surgical Systems, Whiting School of Engineering, Johns Hopkins University, Baltimore, MD |
| 2011-present | Professor of Surgery and Chief, Section of Cardiac Surgery, Yale University, New Haven, CT   |

### **Administrative Positions**

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|--------------|---|
| 2003-2009    | Director, Cardiac Surgical Research, Division of Cardiac Surgery, Johns Hopkins University, Baltimore, MD                   |
| 2004-2011    | Director, Minimally-Invasive Cardiac Surgical Program, Division of Cardiac Surgery, Johns Hopkins University, Baltimore, MD |
| 2011-present | Chief, Section of Cardiac Surgery, Yale University School of Medicine, New Haven, CT  |
| 2011-present | Surgical Director, Yale-New Haven Hospital Heart and Vascular Center, New Haven, CT   |
| 2011-present | Thoracic Surgery Residency Program Director, Yale-New Haven Hospital, New Haven, CT   |

### **Board Certification**

American Board of Surgery, 1999

American Board of Thoracic Surgery, 2002; Recertification, 2011

**Licensure**

1996-present	Medical Board of California (License # G83207)
2001-present	Maryland Board of Physician Quality Assurance (License # D57482)
2011-present	Connecticut Department of Public Health (License # 049810)

**PROFESSIONAL SERVICE****Peer Review Groups/Grant Study Sections**

2013-present	Member, NIH Study Section ZRG1 SBIB-Z03 – Medical Imaging Investigations
2011-present	Permanent Voting Member, Circulatory System Devices Panel, Medical Devices Advisory Committees, Center for Devices and Radiological Health, U.S. Food and Drug Administration
2009-2011	Member, NIH Study Section ZRG1 SBIB-Q (90) S – Computational Modeling and Sciences for Biomedical and Clinical Applications

**Journal Service**

2012-present	Associate Editor, <i>Cardiovascular Engineering and Technology</i>
2007-present	Reviewer for <i>Circulation</i>
2006-present	Reviewer for <i>Annals of Thoracic Surgery</i>
2006-present	Reviewer for <i>Archives of Surgery</i>
2001-present	Reviewer for <i>Journal of Thoracic and Cardiovascular Surgery</i>

**Professional Organizations****Society Memberships**

2008 to present	American Association for Thoracic Surgery
2007 to present	American College of Surgeons (FACS)
2003 to present	American Heart Association, Cardiothoracic and Vascular Surgery Council
2003 to present	American College of Cardiology (FACC)

2003 to present	Southern Thoracic Surgical Association
2002 to present	Society of Thoracic Surgeons
2002 to present	Johns Hopkins Medical and Surgical Association
2001 to present	American Society of Transplant Surgeons
1995 to present	International Society of Heart and Lung Transplantation
1989 to present	Stanford Medical Alumni Association

### Meeting Planning/Participation

2015	Faculty, American Association of Thoracic Surgery Leadership Academy 95 <sup>th</sup> Annual Meeting of the AATS (Seattle, WA)
2014-present	Member, Joint Council on Thoracic Surgical Education, ABS Case Requirement Assessment Task Force
2012-2014	Member-At-Large, Leadership Committee – Cardiovascular Surgery and Anesthesia (CVSA) Council
2012-2013	Society of Thoracic Surgeons - Workforce on New Technology
2012	Chair, Adult Cardiac Skills Symposium, American Association of Thoracic Surgery (San Francisco, CA)
2011	American Association of Thoracic Surgery Leadership Retreat (Westchester, NY)
2011	Session Moderator– (Myocardial Protection/Intraoperative Management), American Heart Association Scientific Sessions 2011 (Orlando, FL)
2010-present	Society of Thoracic Surgeons - Workforce on Annual Meeting (STS University Task Force)
2004-09	Society of Thoracic Surgeons – Workforce on Aging
1996-97	Stanford University Administrative Panel for Laboratory Animal Care
1988-89	Stanford University School of Medicine Admissions Panel

### Professional Honors & Recognition

2015	Castle Connolly America's Top Doctors
2014	Castle Connolly Top Doctor: New York Metro Area

2014	Castle Connolly America's Top Doctors
2013	Castle Connolly Top Doctor: <i>New York Magazine</i>
2013	Castle Connolly Top Doctor, Thoracic & Cardiac Surgery
2013	Top Doctors, <i>U.S. News and World Report</i>
2004	Johns Hopkins Medical Institutions Clinician Scientist Award
1999	Lucile Packard Children's Hospital Award for Excellence in Pediatric Cardiac Surgery
1998	John Henry Smith, III, MD Resident of the Year Award, Stanford University Medical Center

## UNIVERSITY SERVICE

### Departmental Committees

2012	Chair, Search Committee for Chief, Section of Vascular Surgery, Yale School of Medicine
2012-present	Senior Faculty Allotment Committee, Yale School of Medicine
2012-present	Board of Permanent Officers, Yale School of Medicine
2012-present	Admissions Committee, Yale School of Medicine
2012-present	Department of Surgery Appointments & Promotions Committee, Yale School of Medicine
2011-present	Department of Surgery Executive Committee, Yale School of Medicine
2011	Search Committee for Chief of Pediatric Cardiac Surgery (New England Pediatric Specialties), Yale School of Medicine

### Hospital Boards & Committees

2012-present	Yale-New Haven Hospital Heart and Vascular Center Operations Leadership Committee (OLC)
2012-present	Technology Assessment & Application Committee, Yale-New Haven Hospital
2012-present	Yale Physicians Building Planning Committee
2011-present	Yale Society of Thoracic Surgeons Database Review Committee

2011-present	Yale Cardiothoracic Surgery Operations Council
2003 to 2005	Research Directors Committee – New Surgical Technologies, Department of Surgery, Johns Hopkins Hospital
2003 to 2005	Information Systems and Technology Committee, Department of Surgery, Johns Hopkins Hospital
2003 to 2005	Minimally-Invasive Surgical Technologies Committee, Department of Surgery, Johns Hopkins Hospital
2003 to 2004	Clinical Practice Association -- Operations Oversight Committee, Johns Hopkins Hospital

### Public Service

2012	Team Member, Integrate: Enhancing Collaborations in the Arts and Sciences, Arts Council of Greater New Haven
2011	Advisor, FIRST Lego League Robotics Competition (Baltimore, MD)

## GRANT HISTORY

### A) Current Grants

Agency: U.S. Food and Drug Administration  
 ID#: SOL-1119844  
 Title: "Development of computational model from 3D Echo and Micro CT of the normal mitral valve in different simulated environments"  
 PI: Ajit Yoganathan, M.D.  
 Role on Project: Co-PI  
 Percent effort: 8%  
 Direct costs per year: \$132,000  
 Total costs for project period: \$200,000  
 Project period: 9/16/13-9/15/14 (extended)

Agency: NIH-R01  
 I.D. # R01MH085740  
 Title: "Intracranial atherosclerosis and predictors of post-CABG depression"  
 PI: Hochang Lee, MD  
 Role on Project: Co-Investigator  
 Percent effort: 5%  
 Direct costs per year: \$225,000  
 Total costs for project period: \$897,753  
 Project period: 9/24/11-10/31/15 (extended)

Agency: Yale University Department of Surgery  
I.D. # Ohse Research Grant  
Title: "Defining relationships between cardiopulmonary bypass, cerebral oxygen saturation, and postoperative neurocognitive dysfunction"  
PI: David Yuh, MD  
Role on Project: Principal Investigator  
Percent Effort:  
Direct costs per year: (b) (6)  
Total costs for project period: (b) (6)  
Project period: 3/1/15-2/28/16

## B) Past Grants

Agency: NSF  
ID#: NSF 0941362  
Title: "CDI Type II: Language models for human dexterity"  
P.I.: David Yuh, MD, Gregory Hager, PhD, Rajesh Kumar, PhD  
Role on Project: Co-Principal Investigator  
Percent effort: 5%  
Direct costs per year: \$225,000  
Total costs for project period: \$1,242,000  
Project period: 9/1/09-8/31/13

Agency: NIH-R21  
I.D. # R21HL098765-01  
Title: "3D TEE aided FEM biomechanical modeling for planning mitral valve repairs"  
PI: David Yuh, M.D., Philippe Burlina, PhD  
Role on Project: Co-Principal Investigator  
Percent effort: 2%  
Direct costs per year: \$275,000  
Total costs for project period: \$313,932  
Project period: 12/1/09-12/31/11

Agency: NIH-R21  
I.D.# R21EB009143-01A1  
Title: "Automated assessment for the effects of system limitations based upon data collected from multiple training centers"  
PI: David Yuh, M.D., Rajesh Kumar PhD  
Role on Project: Co-Principal Investigator  
Percent effort: 5%  
Direct costs per year: \$150,000  
Total costs for project period: \$439,116  
Project period: 7/1/09-6/30/11

Agency: NIH-ICTR  
I.D. # "3D TEE imaging-based computational modeling of the mitral valve"  
PI: David Yuh, M.D.  
Role on Project: Principal Investigator  
Percent effort: 5%

Total costs for project period: \$100,000

Project period: 11/1/08-10/30/09

Agency: NIH/NIA

I.D. # P30 AG021334 Claude D. Pepper Older Americans Independence Center

Title: "Frailty as a predictor of outcomes in elderly cardiac surgical patients"

PI: Linda P. Fried, M.D.

Role on Project: Co-Investigator

Percent effort: 5%

Total costs for project period: \$100,000

Project period: 6/01/06-5/31/08

Agency: Johns Hopkins School of Medicine

I.D. # Clinician Scientist Award

Title: "Motion recognition analysis for robot-assisted cardiac surgery"

PI: David Yuh, M.D.

Role on Project: Principal Investigator

Percent effort: 5%

Total costs for project period: (b) (4)

Project period: 2/01/04-1/30/07

Agency: NIH-R01

I.D. # R01EB002004

Title: "Haptic feedback for robot-assisted surgical systems"

PI: David Yuh, M.D., Allison Okamura PhD, Christopher Hasser, PhD

Role on Project: Co-Principal Investigator

Percent effort: 5%

Total costs per year: \$235,000

Project period: 9/30/03-8/30/07

Agency: American Geriatrics Society

I.D. # Jahnigen Career Development Scholars Award

Title: "Treatment of postoperative delirium in elderly patients"

PI: David Yuh, M.D.

Role on Project: Principal Investigator

Percent effort: 5%

Total costs for project period: (b) (4)

Project period: 7/01/03-6/30/05

Agency: NIH-R21

I.D. # R21HL72229

Title: "Fas ligand blood cells to reduce transplant rejection"

PI: Curt Civin, M.D.

Role on Project: Co-Investigator

Percent effort: 2%

Direct costs per year: \$240,000

Total costs for project period: \$993,000

Project period: 10/01/02-9/30/05

Agency: NIH Training Grant

I.D.# AI07290-10  
Title: "Immunologic tolerance induction using MHC class I and II peptides"  
PI: Carol Clayberger, PhD  
Percent effort: 80%  
Total costs for project period: \$25,000  
Project period: 7/1/95-6/30/96

Agency: American Heart Association  
ID# Postdoctoral Research Fellowship  
Title: "Immunopharmacologic and mechanistic analysis using a murine heterotopic cardiac transplant model."  
P.I.: David Yuh, M.D.  
Role on Project: Principal Investigator  
Percent effort: 80%  
Total costs for project period: (b) (4)  
Project period: 07/01/94-06/30/95

Agency: American Heart Association  
ID# Predoctoral Research Fellowship  
Title: "Immunopharmacologic and mechanistic analysis of 15-deoxyspergualin"  
P.I.: David Yuh, B.S.  
Role on Project: Principal Investigator  
Percent effort: 50%  
Total costs for project period: (b) (4)  
Project period: 6/30/87-7/1/88

Agency: Stanford University School of Medicine  
ID# Frank A. Gerbode Scholarship for Research in Cardiovascular Surgery  
Title: "Immunopharmacologic and mechanistic analysis of didemnin B"  
P.I.: David Yuh, B.S.  
Role on Project: Principal Investigator  
Percent effort: 30%  
Total costs for project period: (b) (4)  
Project period: 6/30/87-7/1/88

Agency: Stanford University  
ID# Firestone Major Grant for Extended Research  
Title: Undergraduate research program in organic chemistry  
P.I.: David Yuh  
Role on Project: Principal Investigator  
Percent effort: 100%  
Total costs for project period: (b) (4)  
Project period: 7/1/85-6/30/86

## BIBLIOGRAPHY

1. Peer-Reviewed Manuscripts

**Yuh DD**, Zurcher RP, Carmichael PG, Morris RE. Efficacy of didemnin B in suppressing allograft rejection in mice and rats. *Transplantation Proceedings* 1989; 21:1141-1143.

**Yuh DD**, Morris RE. 15-deoxyspergualin is a more potent and effective immunosuppressant than cyclosporine but does not effectively suppress lymphoproliferation in vivo. *Transplantation Proceedings* 1991; 23(1):535-539.

**Yuh DD**, Morris RE. The immunopharmacology of immunosuppression by 15-deoxyspergualin. *Transplantation* 1993; 55(3):578-591.

**Yuh DD**, Gandy KL, Gutierrez J, Robbins RC. Preservation of placental function after cardiopulmonary bypass in fetal sheep using extracorporeal oxygenation. *Surgical Forum* 1995; 46:301-304.

**Yuh DD**, Gandy KL, Morris RE, et al. Leflunomide prolongs pulmonary allograft and xenograft survival. *J Heart Lung Transplant* 1995; 14:1136-1144.

**Yuh DD**, Gandy KL, Hoyt G, Reitz BA, Robbins RC. A rodent model of *in utero* chimeric tolerance induction. *J Heart Lung Transplant* 1997; 16:222-230.

**Yuh DD**, Reitz BA, Gandy KL, Hoyt G, Robbins RC. Tolerance to cardiac allografts induced *in utero* with fetal liver cells. *Circulation* 1996; 94[suppl II]:II-304-II-307.

**Yuh DD**, Gandy KL, Reitz BA, Hoyt G, Robbins RC. Perinatal induction of immunotolerance to cardiac and pulmonary allografts. *J Thorac Cardiovasc Surg* 1997; 114:64-75.

Krieger NR, **Yuh D**, McIntyre WB et al. Prolongation of cardiac graft survival with anti-CD4lg plus hCTLA4lg in primates. *J Surg Research* 1998; 76(2):174-178.

Dosanjh A, Jones L, **Yuh D**, Robbins RC. Pleural disease in patients undergoing lung transplantation for cystic fibrosis. *Pediatric Transplant* 1998; 2:283-287.

Murphy TE, Vignes Cm, **Yuh DD**, Okamura AM. Automatic motion recognition and skill evaluation for dynamic tasks. *Eurohaptics* 2003; 363-373.

Fitton TP, Bethea BT, Borja MC, **Yuh DD**, Yang SC, Orens JB, Conte JV. Pulmonary resection following lung transplantation. *Ann Thorac Surg* 2003; 76(5):1680-1685.

Bethea BT, Okamura AM, Kitagawa M, Fitton TP, Baumgartner WA, **Yuh DD**. Application of haptic feedback to robotic surgery. *J Laparoendo Adv Surg Tech* 2004; 14(3): 191-195.

Durand DJ, Perler BA, Roseborough GS, Grega MA, Borowicz LM, Baumgartner WA, **Yuh DD**. Mandatory versus selective preoperative carotid screening: A retrospective analysis. *Ann Thorac Surg* 2004; 78(1):159-166.

Kitagawa M, Dokko D, Okamura AM, **Yuh DD**. Effect of sensory substitution on suture manipulation forces for robotic surgical systems. *J Thorac Cardiovasc Surg* 2005; 129:151-158.

**Yuh DD**, Simon BA, Fernandez-Bustamante A, Ramey N, Baumgartner WA. Totally endoscopic robot-assisted transmyocardial revascularization. *J Thorac Cardiovasc Surg* 2005; 130(1):120-124.

Harkness JR, Fitton TP, Barreiro C, Alejo D, Gott VL, Baumgartner WA, **Yuh DD**. A 32 year experience with surgical repair of sinus of Valsalva aneurysms. *J Cardiac Surg* 2005; 20:198-204.

Lin HC, Shafran I, Murphy TE, Okamura AM, **Yuh DD**, Hager GD. Automatic detection and segmentation of robot-assisted surgical motions. *MICCAI* 2005; 8(Pt 1):802-810.

Henrikson CA, Leng CT, **Yuh DD**, Brinker JA. Computed tomography to assess possible cardiac lead perforation. *Pacing Clin Electrophysiol* 2006; 29(5):509-511.

Lin HC, Shafran I, **Yuh D**, Hager GD. Towards automatic skill evaluation: Detection and segmentation of robot-assisted surgical motions. *Comp Aided Surg* 2006; 11(5): 220-230.

Fenton H, Judge DP, **Yuh DD**, Halushka MK. Intracardiac giant cells after left ventricular assist device placement. *J Heart Lung Transplant* 2007; 26(4):417-420.

Chang DC, Joyce DL, Shoher A, **Yuh DD**. A simple index to predict likelihood of skilled nursing facility admission after coronary artery bypass grafting among older patients. *Ann Thorac Surg* 2007; 84(3) 829-834; discussion 834-835.

Reiley CE, Akinbiyi T, Burschka D, Chang DC, Okamura AM, **Yuh DD**. Effects of visual force feedback on robot-assisted surgical task performance. *J Thorac Cardiovasc Surg* 2008; 135(1):196-202.

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Weiss ES, Chang DC, Joyce DL, Nwakanma L, **Yuh DD**. Optimal timing of coronary artery bypass after acute myocardial infarction: A review of California Discharge Data. *J Thorac Cardiovasc Surg* 2008; 135(3):503-511 . e1-3. Epub 2008 Feb 21.

Mahvash M, Gwilliam J, Agarwal R, Vagvolgyi B, Su L-M, **Yuh DD**, Okamura AM. Force-feedback surgical teleoperator: Controller design and palpation experiments. 16<sup>th</sup> Symp on Haptic Interf Virt Environ and Teleop Syst 2008; 465-471.

Weiss E, Nwakanma L, **Yuh DD**. Outcomes in patients older than sixty undergoing orthotopic heart transplantation: an analysis of UNOS data. *J Heart Lung Transplant* 2008; 27:184-191.

Reiley CE, Lin HC, Varadarajan B, Vagvolguyi B, Khudanpur S, **Yuh DD**, Hager GD. Automatic recognition of surgical motions using statistical modeling for capturing variability. *Stud Health Technol Inform* 2008; 132:396-401.

Tedford RJ, Hemnes AR, Russel SD, Wittstein IS, Mobusher M, Zaiman AL, Mathai SC, Thiemann DR, Hassoun PM, Girgis RE, Orens JB, Shah AS, **Yuh D**, Conte JV, Champion HC.

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Nagy CD, Levy M, Mulhearn TJ, Shapland M, Sun H, **Yuh D**, Cheung D, Chandra-Strobos N. Safe and effective intravenous thrombolysis for acute ischemic stroke caused by left atrial myxoma. *J Stroke Cerebrovasc Dis* 2009; 18(5):398-402.

Gwilliam J, Mahvash M, Vagvolgyi B, Vacharat A, **Yuh DD**, Okamura AM. Effects of haptic and graphical force feedback for teleoperated palpation. *IEEE Int Conf Robotics and Automation* 2009; 677-682.

Gibo TL, Verner LN, **Yuh DD**, Okamura AM. Design considerations and human-machine performance of moving virtual fixtures. *IEEE Int Conf Robotics and Automation* 2009; 671-676.

Sprouse C, **Yuh D**, Abraham T, Burlina P. Computational hemodynamic modeling based on transesophageal echocardiographic imaging. *Conf Proc IEEE Eng Med Biol Soc.* 2009; 1:3649-52.

Mitter N, Shah A, **Yuh D**, Dodd-O J, Thompson RE, Cameron D, Hogue CW. Renal injury is associated with operative mortality after cardiac surgery for women and men. *J Thorac Cardiovasc Surg* 2010; 140(6):1367-73 Epub 2010 Apr 9.

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Kumar R, Jog A, Malpani A, Vagvolgyi B, **Yuh D**, Nguyen H, Hager G, Chen CCG. Assessing system operation skills in robotic surgery trainees. *International J Med Robotics and CAS* 2012, 8(1):118-124. Epub 2011 Nov 24.

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Kilic A, Weiss ES, Arnaoutakis GH, George TJ, Conte JV, Shah AS, **Yuh DD**. Identifying recipients at high risk for graft failure after heart retransplantation. *Ann Thorac Surg* 2012,93(3):712-716. Epub 2012 Jan 5.

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Kilic A, Shah AS, Conte JV, **Yuh DD**. Nationwide outcomes of surgical embolectomy for acute pulmonary embolism. *J Thorac Cardiovasc Surg* 2012,145(2):373-377.

Kilic A, Conte JV, Shah AS, **Yuh DD**. Orthotopic heart transplantation in patients with metabolic risk factors. *Ann Thorac Surg* 2012, 93(3):718-724.

Kilic A, Weiss ES, Allen JG, George TJ, **Yuh DD**, Shah AS, Conte JV. Should orthotopic heart transplantation using marginal donors be limited to higher volume centers? *Ann Thorac Surg* 2012; 94(3):695-702.

Kilic A, Weiss ES, Allen JG, Conte JV, Shah AS, Baumgartner WA, **Yuh DD**. Simple score to assess the risk of rejection after orthotopic cardiac heart transplantation. *Circulation* 2012; 125:3013-3021.

Kilic A, Weiss ES, **Yuh DD**, Shah AS, Cameron DE, Baumgartner WA, Conte JV. Institutional factors beyond procedural volume significantly impact center viability in outcomes following orthotopic heart transplantation. *Ann Surg* 2012; 256(4):616-623.

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Lebastchi AH, Tackett JJ, Argenziano M, Calhoon JH, Gasparri MG, Halkos ME, Hicks, Jr. GL, Iannettoni MD, Ikonomidis, JS, McCarthy PM, Starnes SL, Tong BC, **Yuh DD**. First nationwide survey of US integrated 6-year cardiothoracic residency program directors. *J Thorac Cardiovasc Surg* 2014; 148(2): 408-415.

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(b) (4) **Yuh DD**, (b) (4)

in press.

## 2. Published/Presented Conference Abstracts

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**Yuh DD**, Morris RE. 15-deoxyspergualin: An immunopharmacologic and mechanistic analysis of an effective immunosuppressant. The Journal of Heart Transplantation 1990; 9:73.

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**Yuh DD**, Jog A, Kumar R. Automated skill assessment for robotic surgical training. Presented at the 2011 47<sup>th</sup> Annual Meeting of the Society of Thoracic Surgeons (San Diego, CA 1/31-2/2).

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Mukherjee R, Sprouse C, Abraham T, McVeigh E, **Yuh DD**, Burlina P. Myocardial motion computation in 4D ultrasound. Presented at the ISBI 2011 (Chicago, IL 3/30-4/2).

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Kilic A, Shah AS, Black JH, **Yuh DD**, Cameron DE, Baumgartner WA, Conte JV. Trends in repair of intact and ruptured descending thoracic aortic aneurysms in the United States: A population-based analysis. Presented at the 2012 American Heart Association Scientific Sessions (Los Angeles, CA, 11/3-11/7).

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Morbach C, Bellavia D, Bonde P, Mangi A, **Yuh D**, Vaitkeviciute I, Weinert L, Lang R, Klas B, Sugeng L. Segmental analysis of mitral valve leaflets in ischemic mitral regurgitation. Accepted for presentation at the 2013 American College of Cardiology Scientific Sessions (San Francisco, CA 3/9-3/11).

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Shumaster V, Jawitz O, **Yuh DD**, Bonde PN. Lessons learned from extracorporeal membrane oxygenation as a bridge to lung transplantation. Presented at the 94<sup>th</sup> Annual Meeting of the New England Surgical Society (Stowe, VT 9/20-9/22/13).

Balakrishna A, Jawitz OK, **Yuh D**, Bonde P. Hearts with downtime history safe for transplant in context of donor and recipient characteristics. Presented at the 50<sup>th</sup> Annual Meeting of the Society of Thoracic Surgeons (Orlando, FL 1/25-1/29/14).

Oldham M, Park Y, Dewar M, Darr U, **Yuh D**, Lee HB. Mild cognitive impairment predicts postoperative delirium after coronary artery bypass graft (CABG) surgery: Preliminary findings from the neuropsychiatric outcomes after heart surgery (NOAHS) study. Presented at the 4<sup>th</sup> Annual Meeting of the American Delirium Society (Baltimore, MD 6/1-6/3/14).

Grbic S, Easley T, Mansi T, Neumann D, Pierce E, Jensen M, Bloodworth C, Siefert A, Krebs J, **Yuh D**, Yoganathan Y, Comaniciu D. Multi-modal validation framework of mitral valve geometry and biomechanical models. To be presented at the 2014 Annual Meeting of the Biomedical Engineering Society (San Antonio, TX 10/22-10/25/14).

### 3. Case Reports, Technical Notes, Letters

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Lewin M, Nazarian S, Marine JE, **Yuh DD**, Argani P, Halushka MK. Fatal outcome of a calcified amorphous tumor of the heart (cardiac CAT). *Cardiovasc Path* 2006; 15(5):299-302.

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Bonde P, **Yuh DD**. Intra-aortic intimal band presenting as an aortic pseudodissection. *J Thorac Cardiovasc Surg* 2010; 139:e64-5.

**Yuh DD**. Effect of sleep deprivation on patient safety: New awakening or tired argument? *Arch Surg* 2011; 146:1085 (Invited Letter).

**Yuh DD**. Drive-line infection in left ventricular assist devices: Implications for destination therapy. *Ann Thorac Surg* 2012; 94(5):1386 (Invited Commentary).

**Yuh DD**. Assessing the value of surgical robotics: Not your grandfather's widget. *JAMA Surg* 2014; 149(7): 686 (Invited Commentary).

**Yuh DD**. Searching for new meaning in PREVENT IV? A project of ex vivo vein graft engineering via transfection IV substudy; *JAMA Surg* 2014; 149(8):805-806 (Invited Commentary).

Perdomo J, **Yuh DD**, Bonde P. Aspergillus pseudoaneurysm post aortic valve replacement. *Aorta* 2014; 2:196-199.

**Yuh DD**. Left ventricular mass regression after aortic valve replacement: Does size really matter? *J Thorac Cardiovasc Surg* 2015; 149(3): 787-788. (Invited Commentary).

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(b) (4) in press (b) (4)

#### 4. Reviews, Chapters, Books

##### Review Articles

Reitz BA, **Yuh DD**. Heart-lung transplantation: From the laboratory to the clinic. Sistema Congressi 1998.

**Yuh DD**, Robbins RC, Reitz BA. Heart-Lung Transplantation: An update. Asian Cardiovascular and Thoracic Annals 1996; 4:4-13.

Reiley CE, Lin HC, **Yuh DD**, Hager GD. Review of methods for objective surgical skill evaluation. Surgical Endoscopy 2011; 25(2):356-366.

## Chapters

**Yuh DD**, Reitz BA. Surgery of the Aortic Arch. In: Wang Z-G, ed. Textbook of Vascular Surgery. Beijing (China), People's Health Publication, 1998.

Robbins RC, **Yuh DD**, Reitz BA. Congenital Diseases of the Heart. In: Niederhuber JE, ed. Fundamentals of Surgery. Los Altos, Appleton & Lange, 1998: pp. 492-521.

**Yuh DD**, Robbins RC, Reitz BA. Transplantation of the Heart and Lungs. In: Edmunds Jr. LH, ed. Cardiac Surgery in the Adult. New York, McGraw-Hill, 1997: pp. 1451-1475.

**Yuh DD**, Reitz BA. Lung & Combined Heart-Lung Transplantation. In: Niederhuber JE, ed. Fundamentals of Surgery. Los Altos, Appleton & Lange, 1998: pp.676-687.

**Yuh DD**, Reitz BA. Cardiac Transplantation. In: Niederhuber JE, ed. Fundamentals of Surgery. Los Altos, Appleton & Lange, 1998: pp.661-675.

**Yuh DD**, Reitz BA. Thoracic Transplantation. In: Schwartz SI, ed. Principles of Surgery, 7th edition. New York, McGraw-Hill, Inc., 1999: pp. 395-418.

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Balsam LB, **Yuh DD**, Robbins RC, Reitz BA. Heart-Lung and Lung Transplantation. In: Cohn LH, ed. Cardiac Surgery in the Adult 2<sup>nd</sup> edition, New York, McGraw-Hill, 2003: pp. 1461-1490.

Bethea B, **Yuh DD**, Conte JV, Baumgartner WA. Cardiac Transplantation. In: Cohn LH, ed. Cardiac Surgery in the Adult 2<sup>nd</sup> edition, New York, McGraw-Hill, 2003: pp. 1427-1259.

Zemon H, **Yuh DD**. Pediatric Cardiac Transplantation. In: Yang SY, Cameron DE, eds. Current Therapy in Thoracic and Cardiovascular Surgery, 2<sup>nd</sup> edition. Philadelphia, Mosby, Inc., 2004: pp. 806-809.

Durand DJ, **Yuh DD**, Mogayzel Jr, PJ. Lung Transplantation in the Pediatric Patient. In: Yang SY, Cameron DE, eds. Current Therapy in Thoracic and Cardiovascular Surgery, 2<sup>nd</sup> edition. Philadelphia, Mosby, Inc., 2004: pp. 263-267.

**Yuh DD**, Conte JV. Cardiac Transplantation. In: Yang SY, Cameron DE, eds. Current Therapy in Thoracic and Cardiovascular Surgery, 2<sup>nd</sup> edition. Philadelphia, Mosby, Inc., 2004: pp. 544-552.

**Yuh DD**. Surgical Management of Endocarditis. In: Yang SY, Cameron DE, eds. Current Therapy in Thoracic and Cardiovascular Surgery, 2<sup>nd</sup> edition. Philadelphia, Mosby, Inc., 2004: pp. 632-640.

**Yuh DD**, Baumgartner WA. Cardiac Surgery in the Elderly. In: Gerstenblith G, ed. Cardiovascular Disease in the Elderly. Totowa, NJ, Humana Press, Inc. 2005: pp. 179-201.

**Yuh DD**. Critical Care of Heart and Lung Transplant Recipients. In: Irwin RS, Rippe JM, eds. Manual of Intensive Care Medicine, 4<sup>th</sup> edition. Philadelphia, Lippincott Williams & Wilkins, 2006: pp. 809-815.

**Yuh DD**. New Surgery for Congestive Heart Failure. In: Baughman K, Baumgartner WA, eds. Treatment of Advanced Heart Disease. New York, NY, Marcel Dekker, 2006: pp. 633-652.

Kim IA, Skelley NW, **Yuh DD**. Critical Care of Heart and Lung Transplant Recipients. In: Irwin RS, Rippe JM, eds. Manual of Intensive Care Medicine, 5<sup>th</sup> edition. Philadelphia, Lippincott Williams & Wilkins, 2009: pp. 940-947.

Davis L, Kim IA, Skelley NW, **Yuh DD**. Critical Care of Heart and Lung Transplant Recipients. In: Irwin RS, Lilly CM, Rippe JM, eds. Manual of Intensive Care Medicine, 6<sup>th</sup> edition. Philadelphia, Lippincott Williams & Wilkins, 2014: pp. 1092-1097.

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(in press).

Sainathan S, **Yuh DD**. Aortic valve replacement with aortic root enlargement. In: Odell DD, LaPar DJ (eds.) TSRA Operative Dictations in Cardiothoracic Surgery. Chicago, TSRA, 2014.

## Textbooks

Reitz BA, **Yuh DD** (eds.) Congenital Cardiac Surgery. New York, McGraw-Hill, 2001.

**Yuh DD**, Vricella LA, Baumgartner WA (eds.) Johns Hopkins Manual of Cardiothoracic Surgery. New York, McGraw-Hill, 2007.

**Yuh DD**, Vricella LA, Yang SC, Doty JR (eds.) The Johns Hopkins Textbook of Cardiothoracic Surgery 2/e. New York, McGraw-Hill, 2014.

## INVITED LECTURES, COURSES, WEB-BASED EDUCATION

2015 95<sup>th</sup> Annual Meeting of the American Association for Thoracic Surgery: "Preparing for Leadership – Do I Really Want to Do This?" (Seattle, WA)

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- 2014 Yale School of Medicine Multi-Modality Cardiovascular Imaging Conference: “Ischemic MR: Should We Just Put A Ring On It?” (New Haven, CT)
- 2013 Johns Hopkins Department of Radiology Grand Rounds: “Blueprint for the Heart: Computational Cardiac Modeling” (Baltimore, MD)
- 2013 Bridgeport Hospital Department of Surgery Grand Rounds: “The State of Cardiothoracic Surgery” (Bridgeport, CT)
- 2012 Yale University Department of Surgery Grand Rounds: “The Halstedian Model: Is it still relevant?” (New Haven, CT)
- 2011 91<sup>st</sup> Annual Meeting of the American Association for Thoracic Surgery: “3D-TEE based computational modeling of the mitral valve for surgical planning” (Philadelphia, PA)
- 2011 91<sup>st</sup> Annual Meeting of the American Association for Thoracic Surgery: “Optimal utilization of cardiac MRI” (Philadelphia, PA)
- 2011 56<sup>th</sup> Annual Philip A. Tumulty Topics in Clinical Medicine, Johns Hopkins University School of Medicine, “Emerging technologies in cardiac surgery” (Baltimore, MD)
- 2011 Johns Hopkins Hospital Department of Medicine Grand Rounds, “Advances in minimally invasive cardiac surgery” (Baltimore, MD)
- 2011 Yale University Section of Cardiovascular Medicine Grand Rounds, “Advances in minimally-invasive cardiac surgery” (New Haven, CT)
- 2010 Johns Hopkins Hospital Department of Surgery Grand Rounds, Inaugural Miller Family Lecture for Vascular and Cardiac Disease, “Can technology make us better surgeons?” (Baltimore, MD)
- 2008 Echocardiography and Beyond at Johns Hopkins Continuing Education Course, “Role of echocardiography in minimally-invasive cardiac surgery” (Baltimore, MD)
- 2008 Cardiovascular Topics at Johns Hopkins Continuing Education Course, “Update on minimally invasive cardiac surgery” (Baltimore, MD)
- 2007 Johns Hopkins Division of Cardiology 8<sup>h</sup> Cardiology Update (CME Course), “Minimally-invasive cardiac surgery” (Baltimore, MD)
- 2007 Johns Hopkins Hospital Division of Cardiology Grand Rounds, “Minimally-invasive cardiac surgery” (Baltimore, MD)
- 2006 Punta Pacifica Hospital (JHH Affiliate) Johns Hopkins International Seminar, “New operations for CHF and minimally-invasive cardiac surgery” (Panama City, Panama)
- 2006 Johns Hopkins Department of Engineering “Change of Heart” Seminar, “Cardiac surgical robotics” (Baltimore, MD)
- 2005 Symposium for New Cardiac Technologies, Bear Stearns Working Group, “Prospects for the Intuitive Surgical da Vinci surgical robotic system in cardiac surgery” (New York,
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- 2005 Hartford Foundation Board of Trustees/American Geriatrics Society Annual Meeting, "Cardiac surgical robotics" (Palm Beach, FL)
- 2005 Johns Hopkins Bayview Medical Center Cardiology Grand Rounds, "Cardiac surgical Robotics" (Baltimore, MD)
- 2004 Hopkins Today Symposium, "Rise of the machines: advances in robotics for minimally-invasive cardiac surgery" (New York, NY)
- 2004 Johns Hopkins Symposium -- Advanced Medical and Surgical Treatment of Heart Failure: "Mitral valve repair for congestive heart failure" (Baltimore, MD)
- 2004 Keynote Address – Computer-Integrated Surgical Systems and Technology Symposium "Robotics for Minimally-Invasive Surgery" (Baltimore, MD)
- 2004 Johns Hopkins Division of Cardiovascular Medicine Fellows Conference, "Type A aortic dissection" (Baltimore, MD)
- 2004 Annual Scientific Meeting of the American Geriatrics Society, "Treatment of postoperative delirium in geriatric patients after cardiac surgery" (Las Vegas, NV)
- 2004 Johns Hopkins International Symposium -- Managing Change in Clinical Care, "Surgical robotics: potential impact on cardiac surgical outcomes" (Baltimore, MD)
- 2004 Society of Clinical Surgery, "Robotics in cardiac surgery" (Baltimore, MD)
- 2004 Thoracic Surgical Directors Association Curriculum Series "Mechanical support of the heart" (Arlington, VA)
- 2004 Cardiovascular Topics at Johns Hopkins Continuing Education Course, "Cardiac surgical robotics" (Baltimore, MD)
- 2004 Johns Hopkins Division of Cardiovascular Medicine Grand Rounds, "Cardiac surgical robotics" (Baltimore, MD)
- 2003 Johns Hopkins Department of Surgery Research Seminar Series, "Surgical robotics: performance enhancement" (Baltimore, MD)
- 2003 Computer Integrated Surgical Systems Technology – Johns Hopkins Engineering Research Center Seminar, "Surgical robotics: cardiac surgical applications" (Baltimore, MD)
- 2003 Clinical and Research Aspects of Heart Failure, Johns Hopkins Continuing Education Course, "New strategies for transplant induction" (Cambridge, MD)
- 2003 Johns Hopkins Department of Surgery Grand Rounds, "Type A aortic dissections: an Update" (Baltimore, MD)

- 2003 Cardiovascular Topics at Johns Hopkins “VADs and prospects for an implantable heart prosthesis” (Baltimore, MD)
- 1997 The 1997 Kovitz Visiting Professor Lectureship Research Seminar in Honor of David B. Skinner, MD, “*In Utero* tolerance to heart, lung, and skin allografts” (Stanford, CA)
- 1997 New Developments in Cardiovascular Disease in Honor of Michael E. DeBakey, MD “*In utero* tolerance to heart, lung, and skin allografts” (Stanford, CA)
- 1996 69<sup>th</sup> Scientific Sessions of the American Heart Association “*In Utero* Induction of Immunotolerance to Cardiac, Lung, and Skin Allografts” (New Orleans, LA)
- 1996 Stanford University Medical Center Symposium for Critical Care Nursing, “Fever: to treat let cook” (Stanford, CA)
- 1996 82<sup>nd</sup> Annual Clinical Congress of the American College of Surgeons, “*In utero* induction of immunotolerance to cardiac, lung, and skin allografts” (San Francisco, CA)
- 1995 68<sup>th</sup> Scientific Sessions of the American Heart Association, “Tolerance to cardiac allografts induced *in utero* with fetal liver cells” (Anaheim, CA)
- 1995 81<sup>st</sup> Annual Clinical Congress of the American College of Surgeons, “Preservation of placental function after cardiopulmonary bypass in fetal sheep using extracorporeal membrane oxygenation” (New Orleans, LA)
- 1995 15<sup>th</sup> Scientific Sessions of the International Society of Heart and Lung Transplantation, “Leflunomide prolongs pulmonary allograft and xenograft survival” (San Francisco, CA)
- 1994 University of Minnesota Department of Surgery Transplant Conference, “Deoxyspergualin: what we know” (Minneapolis, MN)
- 1990 9<sup>th</sup> Annual Meeting of the American Society of Transplant Physicians, “The immunopharmacology of immunosuppression by 15-deoxyspergualin” (Chicago, IL)

## MENTORING

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Dates of Mentoring:

2011-2013

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Dates of Mentoring:

2011-present

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*Dates of Mentoring:*

2003-present

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*Dates of Mentoring:*

2008-2011

**Physician Advisor**

Bioengineering Innovation & Design Program  
Department of Biomedical Engineering  
Johns Hopkins Hospital  
Baltimore, MD  
2009

*Dates of Mentoring:*

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*Dates of Mentoring:*

2005-2011

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2002-2011

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2002-2004

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2002-2004

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